Stanford



Alex Bien

Accel System Operator I, Accelerator

Curriculum Vitae available Online

Bio

BIO

I am a 2022 graduate with a B.S. in physics from the University of Maryland at College Park, and I currently operate the world's longest and most powerful linear particle accelerator administrated by Stanford University under the direction of the US Department of Energy. Here I interface directly with the machinery, controls, and safety systems for three linear accelerator facilities: FACET-II where electron-pair beams are shot thru hot plasma to study novel wakefield acceleration techniques, LCLS where coherent x-rays of very high energy (and inversely low wavelength) probe deep into matter for imaging at atomic scales, and LCLS-II where commissioning is underway to produce a much more powerful megahertz rep rate superconducting beam that can leverage the same XFEL mechanism to (instead of just taking snapshots) also resolve the dynamics of chemical reactions in situ.

EDUCATION AND CERTIFICATIONS

- Bachelor of Science, University of Maryland, College Park , Physics (2022)

LINKS

- GitHub: https://code.stanford.edu/abien

Professional

WORK EXPERIENCE

- Research Assistant - Laboratory for Physical Sciences • LPS Qubit Collaboratory (November 2020 - July 2022)
- SULI Researcher - SLAC National Accelerator Laboratory • Stanford University (June 2021 - August 2021)
- PREP Researcher - National Institute of Standards and Technology (NIST) (March 2019 - August 2020)
- SPD Researcher - University of Maryland - First Year Innovation and Research Experience (FIRE) (August 2019 - December 2019)